PATENT
ATTY. DOCKET NO. IBM/91
Confirmation No. 5010

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	William Joseph Armstrong et al.	Art Unit: 3629
Serial No.	:	09/314,324	Examiner: Thomas A. Dixon
Filed	:	May 19, 1999	
For	:	MANAGEMENT OF A CONCURRENT USE LICENSE IN A LOGICALLY-PARTITIONED COMPUTER	

Cincinnati, Ohio 45202

July 24, 2003

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
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TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION-37 CFR 191)

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal received by the Office on May 27, 2003.

2. **STATUS OF APPLICANT**

This application is on behalf of

XX **other than a small entity**

____ small entity

Verified Statement:

___ attached

___ already filed

3. **FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

____	Small entity	$160.00
XX	**Other than a small entity**	**$320.00**

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Months		Fee for other than small entity	Fee for small entity
_____	one month	$ 110.00	$ 55.00
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Appeal Brief Fee **$320.00**

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XX Attached is a check in the sum of **$320.00**.

____ Charge fee to Deposit Account No. 23-3000.

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XX Charge any additional extension fee required or credit any overpayment to Deposit Account No. 23-3000.

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CERTIFICATE OF MAILING 37 CFR 1.8

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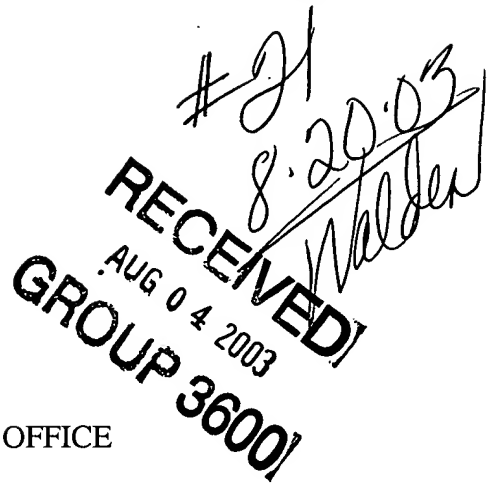

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte William Joseph Armstrong, Naresh Nayar, and Kevin Patrick Stamschror

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Appeal No. _____
Application No. 09/314,324

APPEAL BRIEF

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Serial No.:	09/314,324	Examiner:	Thomas A. Dixon
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For:	MANAGEMENT OF A CONCURRENT USE LICENSE IN A LOGICALLY-PARTITIONED COMPUTER		

APPEAL BRIEF

Mail Stop APPEAL BRIEF - PATENTS
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I. REAL PARTY IN INTEREST

This application is assigned to International Business Machines Corporation, of Armonk, New York.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1, 3-10, and 12-20 are currently pending, with claims 2 and 11 canceled and claims 1, 6, 10, 12, and 18-19 being once amended. All pending claims currently stand rejected, and are now on appeal.

IV. STATUS OF AMENDMENTS

There have been no amendments filed subsequent to final rejection (Paper No. 18).

V. SUMMARY OF INVENTION

The invention is generally related to an apparatus, program product and method that track concurrent uses of a computer program across a plurality of logical partitions in a logically

partitioned computer, such that a decision as to whether to grant or deny a request to use the computer program in a particular logical partition may be made based upon whether the requested use, coupled with other uses in other logical partitions in the computer, would violate a concurrent use software license associated with the computer program.

By way of background, concurrent use licenses are routinely used in the software industry as a convenient and often cost-effective manner of providing computer software to customers. Unlike other types of licenses that typically limit the number of copies of a computer program that can be installed on a customer's computers, a concurrent use license typically limits how many users can access or use a computer program at one time. (Application, page 1). Concurrent use licenses are often used in networked computer systems where multiple copies of a computer program are executed on a server or other multi-user computer accessible by multiple users. In such a system, a customer can often license a computer program for a fee that is based upon the number of users that the customer expects will need access to the computer program at one time, which is often significantly lower than the total number of users having access to the system. (Application, page 2).

Software-based license managers are conventionally used on multi-user computers and the like to restrict the use of computer programs based upon the terms of concurrent use licenses associated with those computer programs. With a software-based license manager, uses of a computer program are tracked for a given computer, and requests to use the computer program are automatically granted or denied based upon the number of other uses being tracked by the license manager. (Application, page 2).

Some license managers rely on the use of software "keys" to handle requests to use computer programs. When a customer licenses a computer program, the customer is provided with a software code that includes a product identifier (which identifies the licensed computer program), a machine identifier (which identifies the particular computer upon which the computer program will execute), and a license identifier (which identifies the license terms, e.g., the allowed maximum number of concurrent users for the computer program). The key is also typically encrypted so that the information contained therein cannot be modified by the customer or others to defeat the license restrictions. (Application, page 2).

When the computer program is installed on the customer's computer, the software key is provided to the license manager on the computer, and the license manager verifies that the product is licensed for the computer by comparing the machine identifier in the key with that maintained in the computer. Thereafter, requests to use the computer program are handled by the license manager to limit the number of concurrent uses to that specified in the key. (Application, page 2).

With many licence management schemes, the machine identifier is tied to a unique and non-modifiable identifier associated with the underlying computer hardware (e.g., the computer's serial number) to prevent an unauthorized party from changing the machine identifier for a computer to match that of an authorized computer and illegally installing a computer program, originally licensed for the authorized computer, on the unauthorized computer. (Application, pages 2-3).

Applicants have found, however, that tying a machine identifier to a serial number or other unique identifier for the underlying computer hardware can introduce a significant management problem when the computer utilizes *logical partitioning*. The invention is directed to overcoming this problem that is unique to logically-partitioned computers.

Specifically, with logical partitioning, a single physical computer is permitted to operate essentially like multiple and independent "virtual" computers (referred to as logical partitions), with the various resources in the physical computer (e.g., processors, memory, input/output devices, etc.) allocated among the various logical partitions by a shared partition manager, often also referred to as a "hypervisor". Of note, each logical partition executes a separate operating system, and from the perspective of users and of the software executing on the logical partition, operates as a fully independent computer. (Application, page 3).

By maintaining this strict separation between logical partitions and a shared partition manager, an operating system and any user applications that are otherwise not specifically designed for use in a logically-partitioned computer are often able to be installed and executed without any modification or customization. (Application, page 3).

Given the independence of logical partitions, conventional approaches to license management utilize a separate license manager in each logical partition to handle the license management operations for the applications residing within the logical partition. Despite the

logical independence of the logical partitions, however, the logical partitions still share the same machine identifier given that they reside on the same underlying computer hardware. (Application, page 3).

As a result, with conventional approaches a customer may be able to use the same software key to install a licensed computer program on multiple logical partitions on the same physical computer. Furthermore, such license managers, which are typically the same programs used on non-partitioned computers, have no capability to determine whether a particular program is currently in use in other partitions. Consequently, while the license manager in each logical partition may limit the number of concurrent uses within that logical partition to match the license restrictions set forth in the software key, the aggregate number of concurrent uses across all of the logical partitions may exceed the license restrictions. In essence, the license restrictions are defeated simply by installing a program on multiple logical partitions. (Application, page 3).

Applicants' claimed invention addresses these specific problems by providing functionality within a partition manager of a logically-partitioned computer to track concurrent uses of a licensed computer program across a plurality of logical partitions. Local license managers, resident within each logical partition, handle license management within each logical partition by accessing the partition manager as needed to limit the total number of concurrent uses for a particular computer program across all logical partitions. As such, the logical independence of each logical partition is maintained, without the need for license managers in different logical partitions to interact with one another. (Application, page 4).

In specific embodiments of the invention, the local license managers access the partition manager specifically in response to requests to use a computer program. (Application, page 9). Moreover, in some embodiments the local license managers *themselves* make the determinations of whether requested uses will violate a concurrent use software license, and based upon such determinations, selectively grant or deny such requests. (Application, page 9).

By approaching license management in such a manner, the peculiarities of a logically-partitioned computer system are accounted for in a manner that maintains the logical independence of each logical partition, while still ensuring that the number of copies of a licensed program executing on multiple logical partitions on a given machine does not exceed the permitted number of concurrent uses for that machine.

VI. ISSUES

A. Whether claims 1, and 3-9 were improperly rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,201,438 to Duvvoori et al. (hereinafter "*Duvvoori*").

B. Whether claims 10, and 12-20 were improperly rejected under 35 U.S.C. §103(a) as being unpatentable over *Duvvoori*.

VII. GROUPING OF CLAIMS

Claims 1, 3-10, and 12-20 do not stand or fall together.

VIII. ARGUMENT

Applicants respectfully submit that the Examiner's rejections of claims 1, 3-10, and 12-20 are not supported on the record, and that the rejections should be reversed. Reversal of all rejections, and passage of this case onto allowance, are therefore respectfully requested.

A. Claims 1, and 3-9 were improperly rejected under 35 U.S.C. § 102(e) as being anticipated by *Duvvoori*.

The Examiner argues that *Duvvoori* anticipates all of claims 1, and 3-9. Anticipation of a claim under 35 U.S.C. §102, however, requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros., Inc. v. Union Oil Co., 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), *quoted in* In re Robertson, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999). Absent express description, anticipation under inherency requires extrinsic evidence that makes it clear that "the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991), *quoted in* In re Robertson at 1951. "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." Continental Can at 1749, *quoted in* In re Robertson at 1951.

Applicants respectfully submit that *Duvvoori* falls far short of anticipating claims 1, and 3-9, and as such, the rejections thereof should be reversed. Applicants will hereinafter address the various claims that are the subject of the Examiner's rejection in order.

Claim 1

Claim 1 generally recites a method of managing a concurrent use software license in a logically partitioned computer of the type including a plurality of logical partitions, where each logical partition includes an operating system resident therein. The claimed method includes several steps performed by a partition manager that is accessible by the plurality of logical partitions, and a license manager resident in a first logical partition among the plurality of logical partitions. In particular, the partition manager performs the step of tracking concurrent uses of a computer program across the plurality of logical partitions. The license manager, on the other hand, performs the steps of (1) accessing the partition manager in response to a request to use the computer program in the first logical partition, and (2) selectively denying the request to use the computer program in the first logical partition if permitting the requested use would violate a concurrent use software license associated with the computer program.

Prior to discussing the specific distinctions between claim 1 and the cited art of record, Applicants wish to initially traverse the Examiner's rejection of claim 1 on the basis of 35 U.S.C. §102(e), given the Examiner rejection of the other independent claims on the basis of 35 U.S.C. §103(a). The Examiner's stated reasoning for rejecting claim 1 on the basis of anticipation is due to the Examiner's refusal to give weight to the preamble limitation in claim 1 reciting that each logical partition includes an operating system, a feature that the Examiner has acknowledged to not be specifically taught by *Duvvoori* (*See* ¶2 of the Final Office Action).

Applicants respectfully submit, however, that the recitation of an operating system in claim 1 is entitled to patentable weight, as the recitation is more than a mere field of use, and as the recitation serves to further define what is meant by a "logical partition", a term used in the body of the claim. "If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim."

Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999) (quoted in MPEP §2111.02).

In this case of claim 1, the recitation of an operating system limits and describes the term "logical partition", which is utilized throughout the body of claim 1. This limitation is thus entitled to patentable weight, and given the Examiner's admission in the Office Action that this feature was not disclosed in *Duvvoori*, Applicants respectfully submit that claim 1 is not anticipated by *Duvvoori*.

Moreover, Applicants note that the recitation of an operating system was added to claim 1 simply to make explicit what was already an inherent characteristic of a logical partition. Thus, even were the added recitation in claim 1 not entitled to patentable weight, the inherent nature of a logical partition would dictate that the disclosure in *Duvvoori* (which the Examiner has admitted fails to disclose operating systems in partitions) would still fail to anticipate claim 1.

As such, Applicants respectfully submit that the Examiner's §102(e) rejection of claim 1 should be reversed as a matter of law.

Irrespective of this legal error, however, the Examiner's rejection is also deficient on a number of additional grounds. In rejecting claim 1, the Examiner principally focuses on the disclosure in *Duvvoori* regarding implementing license management for a 16-bit application running in a 32-bit Windows NT environment. The Examiner's reliance on this disclosure is deficient for at least two reasons. First, a virtual computer environment in Windows NT is not analogous to a logically-partitioned computer, so the parallels the Examiner draws between the two environments are inherently flawed. Second, even if such parallels were appropriate, claim 1 focuses on a specific delegation of responsibilities that has no like delegation in *Duvvoori*.

As to the Examiner's reliance on the virtual computer environments disclosed in *Duvvoori*, Applicants submit that these environments are not recognized as equivalents to a logically-partitioned environment. Logical partitioning is well recognized in the art as a separate concept from the emulation of a 16-bit environment in a 32-bit operating system.

As described at page 3 of the Application, logically-partitioned environments are characterized as relying on a shared partition manager that is accessible by multiple logical partitions that not only emulate virtual computers, but that also are allocated various resources in the underlying hardware platform (e.g., processors, memory, input/output devices, etc.). Also,

claim 1 recites that each logical partition includes an operating system, and as noted above, the Examiner has acknowledged that *Duvvoori* does not disclose an operating system in each 16-bit virtual environment.

The 16-bit environments disclosed in *Duvvoori* do teach the emulation of operating system functionality to enable a 16-bit application to execute in a 32-bit environment. Nevertheless, the additional characteristics of logical partitioning, most notably the use of a complete operating system in each logical partition, and the allocation of specific hardware resources to each logical partition, are not disclosed or suggested by *Duvvoori*. As a result, Applicants submit that claim 1 is novel and obvious over *Duvvoori*.

Furthermore, even using an interpretation of *Duvvoori* that is most favorable to the Examiner, and *assuming arguendo* that the Examiner's drawn analogies between the 16-bit environments of *Duvvoori* and logical partitioning are proper, *Duvvoori* still fails to anticipate claim 1. In particular, claim 1 recites a specific delegation of responsibilities between a partition manager and a license manager resident in a logical partition. This specific delegation of responsibilities is neither disclosed nor suggested by *Duvvoori*.

First, *Duvvoori* does not disclose "tracking concurrent uses of a computer program . . . using a partition manager" (*emphasis added*), as is required by claim 1. *Duvvoori* is instead directed to managing licenses for multiple computers in a distributed fashion, using a centralized license restriction management process running on a file server coupled to a network (See Fig. 1). It is the license restriction management process that the Examiner considers to track concurrent uses of a computer program. Notably, however, this process is executed in a separate computer from any computer upon which a licensed program is executing. As such, if the Examiner considers the management process to correspond to a partition manager, this process is not executing on a "logically partitioned computer" even using the Examiner's chosen terminology. Moreover, there is no disclosure in *Duvvoori* that the file server, nor any of the other computers described or illustrated in the reference are logically-partitioned computers. Given the lack of any disclosure of logical partitioning, it is not surprising that *Duvvoori* lacks any disclosure of a partition manager, much less a partition manager that tracks concurrent uses of a computer program.

Second, *Duvvoori* does not disclose "with a license manager resident in a first logical partition . . . accessing the partition manager in response to a request to use [a] computer program" (*emphasis added*), as is also required by claim 1. As noted above, *Duvvoori* does not disclose the concept of logical partitioning. Moreover, even if a 16-bit environment in *Duvvoori* is considered to be analogous to a logical partition, there is no license manager resident in such an environment that accesses a partition manager in response to a request to use a computer program.

Instead, *Duvvoori* discloses agents that are resident in each 16-bit environment. In the preferred embodiment, and as illustrated in Figs. 4B-4C and described in col. 16, line 46 to col. 17, line 53, these agents respond to requests from a 32-bit agent running outside of the environment and provide back a list of all 16-bit applications that are running in the environment. The 32-bit agent then provides the list to the license restriction management process on the file server, which then determines whether any of the applications are in violation of the license terms, and if so, sends a denial message to the 32-bit agent. The 32-bit agent then sends requests to the 16-bit agent to terminate any violating applications.

Of note, the 16-bit agents are not permitted to communicate directly with the license restriction management process that tracks the concurrent uses (col. 16, lines 38-41), and as such, such agents do not perform any functions analogous to "accessing [a] partition manager", as required by claim 1.

Duvvoori does disclose that in alternative embodiments, and in prior art agents, communication between a 16-bit agent and a license restriction management process was permitted (col. 16, lines 41-43, *see also* col. 4, lines 5-14, and col. 18, lines 41-47). However, of note, none of these agents ever access the process "in response to a request to use [a] computer program", as required by claim 1. In particular, with respect to the allegedly inventive agents, these agents are described as being capable of terminating an application in response to a request from a license restriction management process, and after supplying a list of currently running applications (col. 18, lines 41-47). Likewise, the prior art agents described at col. 4, lines 5-14 are described as detecting running applications. Thus, the agents in *Duvvoori* all appear to operate on applications that have already been started, by selectively terminating those applications when appropriate. Thus, *Duvvoori* does not disclose an agent that specifically

accesses a license restriction management process "in response to a request to use [a] computer program".

Third, *Duvvoori* does not disclose "with a license manager resident in a first logical partition . . . selectively denying [a request to use a computer program] if permitting the requested use would violate a concurrent use software license."(*emphasis added*), as is also required by claim 1. As noted above, none of the agents resident in a 16-bit environment is capable of denying or granting a request to use a computer program. Instead, this functionality is allocated to the license restriction management process, which not only does not execute in the 16-bit environment, but in fact executes on an entirely different computer (col. 6, line 49 to col. 7, line 54). In no embodiment of *Duvvoori* is an agent running in a 16-bit environment ever configured to actively deny or grant a request to use a licensed program.

In short, *Duvvoori* does not disclose a single computer upon which (1) a program analogous to a partition manager tracks concurrent uses of a licensed program, and (2) another program analogous to a license manager resides within a logical partition (or other virtual environment) on the same computer that both accesses the partition manager in response to a request to use the licensed program, and selectively denies the request if doing so would violate a software license. Instead, in *Duvvoori* the tracking of concurrent uses, as well as the selective denial of a request to use a program are performed, if at all, by a license restriction management process that is resident on a different computer from that which a licensed program is being executed.

Claim 1 is therefore novel over *Duvvoori*, and the rejection should be reversed.

Applicants also respectfully submit that claim 1 is also non-obvious over *Duvvoori*. A *prima facie* showing of obviousness requires that the Examiner establish that the differences between a claimed invention and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. §103(a). Such a showing requires that all claimed features be disclosed or suggested by the prior art. Such a showing also requires objective evidence of the suggestion, teaching or motivation to combine or modify prior art references, as "[c]ombining prior art references without evidence of such a suggestion, teaching or motivation simply takes the

inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability -- the essence of hindsight." In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

In this case, the Examiner has provided no evidence of a recognized motivation in the art to modify *Duvvoori* to incorporate the described functionality in a single logically partitioned computer, or even a single computer incorporating a 16-bit environment. Moreover, there is no evidence of a motivation to perform the function of selectively denying a request to use a program using a license manager or other program that is executing in the same 16-bit environment from which the request to use the program originated.

The only motivation argued by the Examiner relates to the equivalency of an operating system and an environment that "emulates" an operating system. (*See* ¶2 of the Final Office Action). While Applicants dispute the Examiner's allegation of equivalency, even were this allegation proper, obviousness would still not be established in that no motivation has yet been shown for modifying *Duvvoori* to operate in a single computer, with the selective denial functionality implemented within a logical partition or other virtual environment, rather than in a program that executes outside of the virtual environment.

As Applicants have noted in the Application, as well as repeatedly throughout prosecution, Applicants' invention addresses a problem associated with concurrent use license management that is unique to logically partitioned computers - that of tracking usages across multiple logical partitions when the partitions share the same hardware identifier (since they are resident on the same physical machine), and when the partitions are designed to hide from each logical partition the fact that other partitions are also resident on the same computer. *Duvvoori*, on the other hand, simply does not address the problems Applicants have noted are unique to logically-partitioned computers, or the particular solution that is recited in claim 1. Moreover, the Examiner has provided no other citations that even arguably recognize the problem or any proposed solutions thereto. As such, Applicants respectfully submit that claim 1 is non-obvious over *Duvvoori* and the other prior art of record. Reversal of the Examiner's rejection of claim 1, and reconsideration and allowance of the claim, are therefore respectfully requested.

Claims 3-7

Claims 3-7 are not separately argued.

Claim 8

Claim 8 adds to claim 1, the concept of determining in the local license manager for the first logical partition whether permitting the requested use would violate the concurrent use software license. As noted above, claim 1 also requires that the local license manager "selectively deny" a request to use the licensed program.

In rejecting claim 8, the Examiner relies on col. 13, lines 11-36 of *Duvvoori*. However, the cited passage describes the functionality of the license restriction management process, which as described above, is not analogous to a "license manager resident in a logical partition". Furthermore, there is no suggestion in the reference, or elsewhere in the prior art, to modify *Duvvoori* to incorporate such functionality into an agent resident in a virtual environment (which the Examiner apparently analogizes to the claimed license manager).

As *Duvvoori* does not disclose or suggest determining whether a license would be violated within a license manager (or analogous program) that is resident in a logical partition (or analogous virtual environment), Applicants submit that the rejection of claim 8 cannot be sustained. Reversal of the Examiner's rejection, and reconsideration and allowance of claim 8, are therefore respectfully requested.

Claim 9

Claim 9 is not separately argued.

B. Claims 10, and 12-20 were improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over *Duvvoori*.

Applicants respectfully submit that the Examiner's obviousness rejections of claims 10, and 12-20 based upon *Duvvoori* are not supported on the record, and that the Examiner has failed to establish a *prima facie* case of obviousness as to claims 10, and 12-20. As such, the rejections should be reversed. Applicants will hereinafter address the various claims that are the subject of the Examiner's rejection in order.

Claim 10

With respect to independent claim 10, this claim recites *inter alia* an apparatus including a logically partitioned computer with a plurality of logical partitions (each with an operating system), and a program that includes (1) a partition manager accessible by the plurality of logical partitions and configured to track concurrent uses of a licensed program, and (2) a license manager resident in a logical partition and configured to access the partition manager in response to a request to use the licensed program.

Claim 10 has been rejected as being obvious in view of *Duvvoori*, with the Examiner asserting that all features are disclosed by *Duvvoori* with the exception of providing an operating system in a logical partition, which the Examiner considers to be equivalent to the emulation of an operating system as taught in *Duvvoori*.

As discussed above in connection with claim 1, however, *Duvvoori* does not disclose or suggest a single logically partitioned computer incorporating the aforementioned functionality. Nor does *Duvvoori* disclose or suggest a partition manager and a license manager resident on the same computer, with the partition manager being accessible by the logical partitions, and the license manager being resident within a logical partition. Moreover, *Duvvoori* does not even disclose or suggest denying a request to use a program, as the various embodiments disclosed therein appear to operate by terminating an already-existing program.

Therefore, for these reasons, Applicants respectfully submit that the Examiner's rejection cannot be sustained. Reversal of the Examiner's rejection, and reconsideration and allowance of claim 10, are therefore respectfully requested.

Claim 12

Claim 12 is not separately argued.

Claim 13

Claim 13 additionally recites that the license manager is further configured to receive the global count from the partition manager in response to the access thereto, and to selectively deny the request when the global count is at least equal to a maximum number of concurrent uses permitted by the concurrent use software license.

Duvvoori, however, does not disclose or suggest a configuration where an agent in a 16-bit virtual environment (which the Examiner analogizes to a license manager resident in a logical partition) is capable of either (1) receiving a global count from the license restriction management process (which the Examiner analogizes to a partition manager), or (2) selectively denying a request to use a licensed program when the global count is at least equal to a maximum number of concurrent uses.

Instead, *Duvvoori* discloses that the license restriction management process maintains the global count internally, and internally makes the decision whether to permit or prohibit the execution of a licensed program. Indeed, the Examiner's citation of col. 6, line 49 to col. 7, line 1 and col. 13, lines 19-36 relates purely to functionality implemented within the license restriction management process. There is no suggestion in the reference, or elsewhere in the prior art, of moving the decision to permit/prohibit to another entity such as an agent executing in a virtual environment. Moreover, as there is no such suggestion, there is likewise no suggestion to communicate global counts externally from a license restriction management process, as there would be no reason to communicate such global counts when all decision making is internal to the process.

Applicants therefore respectfully submit that the rejection of claim 13 cannot be sustained. Reversal of the Examiner's rejection, and reconsideration and allowance of claim 13, are therefore respectfully requested.

Claims 14-17

Claims 14-17 are not separately argued.

Claim 18

With respect to independent claim 18, this claim recites *inter alia* an apparatus including a plurality of logical partitions (each with an operating system), a partition manager configured to track concurrent uses of a licensed program across the plurality of logical partitions, and a plurality of license managers, each resident in a logical partition and configured to access the partition manager in response to a request to use the licensed program.

Claim 18 has been rejected as being obvious in view of *Duvvoori*, with the Examiner asserting that all features are disclosed by *Duvvoori* with the exception of providing an operating system in a logical partition, which the Examiner considers to be equivalent to the emulation of an operating system as taught in *Duvvoori*.

As discussed above in connection with claim 1, however, *Duvvoori* does not disclose or suggest a logically partitioned computer incorporating the aforementioned functionality. Nor does *Duvvoori* disclose or suggest license managers capable of accessing a partition manager that tracks concurrent uses of a licensed program across multiple logical partitions, where such access is performed by a license manager in response to a request to use the licensed program.

Therefore, for these reasons, Applicants respectfully submit that the Examiner's rejection cannot be sustained. Reversal of the Examiner's rejection, and reconsideration and allowance of claim 18, are therefore respectfully requested.

Claim 19

With respect to independent claim 19, this claim recites *inter alia* a program product configured to manage a concurrent use license on a logically partitioned computer with a plurality of logical partitions (each with an operating system), where the program includes (1) a partition manager accessible by the plurality of logical partitions and configured to track concurrent uses of a licensed program, and (2) a license manager resident in a logical partition and configured to access the partition manager in response to a request to use the licensed program and selectively deny the request if permitting the requested use would violate the license.

Claim 19 has been rejected as being obvious in view of *Duvvoori*, with the Examiner asserting that all features are disclosed by *Duvvoori* with the exception of providing an operating system in a logical partition, which the Examiner considers to be equivalent to the emulation of an operating system as taught in *Duvvoori*.

As discussed above in connection with claim 1, however, *Duvvoori* does not disclose or suggest a program executing on a single logically partitioned computer and incorporating the aforementioned functionality. Nor does *Duvvoori* disclose or suggest a partition manager and a license manager resident on the same computer, with the partition manager being accessible by

the logical partitions, and the license manager being resident within a logical partition. Moreover, *Duvvoori* does not disclose or suggest such a license manager capable of either accessing a partition manager in response to a request to use a program, or selectively denying a request if permitting the requested use would violate the license. Instead, *Duvvoori* allocates decision-making functionality to a license restriction management process running in a separate computer, and outside of any virtual environment or other environment considered to be analogous to a logical partition. Such decision-making functionality is also directed to terminating an already-executing program, rather than granting or denying a request to use such a program prior to its execution.

Therefore, for these reasons, Applicants respectfully submit that the Examiner's rejection cannot be sustained. Reversal of the Examiner's rejection, and reconsideration and allowance of claim 19, are therefore respectfully requested.

Claim 20

Claim 20 is not separately argued.

IX. CONCLUSION

In conclusion, Applicants respectfully request that the Board reverse the Examiner's rejections of claims 1, 3-10, and 12-20, and that the Application be passed to issue. If there are any questions regarding the foregoing, please contact the undersigned at 513/241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

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Date: 24 JULY 2003

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APPENDIX A: CLAIMS ON APPEAL (S/N 09/314,324)

1. (Once Amended) A method of managing a concurrent use software license in a logically partitioned computer of the type including a plurality of logical partitions, each including an operating system resident therein, the method comprising:

(a) tracking concurrent uses of a computer program across the plurality of logical partitions in the logically partitioned computer using a partition manager accessible by the plurality of logical partitions; and

(b) with a license manager resident in a first logical partition among the plurality of logical partitions, accessing the partition manager in response to a request to use the computer program in the first logical partition and selectively denying the request to use the computer program in the first logical partition if permitting the requested use would violate a concurrent use software license associated with the computer program.

2. (CANCELED).

3. (Original) The method of claim 2, wherein tracking concurrent uses of the computer program includes maintaining a global count of the number of concurrent uses of the computer program across the plurality of logical partitions.

4. (Original) The method of claim 3, further comprising receiving the global count from the partition manager in response to the access thereto, and wherein selectively denying the request includes denying the request when the global count is at least equal to a maximum number of concurrent uses permitted by the concurrent use software license.

5. (Original) The method of claim 3, further comprising:

(a) incrementing the global count whenever a request to use the computer program is granted; and

(b) decrementing the global count whenever a use of the computer program is terminated.

6. (Once Amended) The method of claim 5, wherein each logical partition includes a local license manager.

7. (Original) The method of claim 6, wherein each of incrementing and decrementing the global count includes passing a program identifier to the partition manager.

8. (Original) The method of claim 6, further comprising determining in the local license manager for the first logical partition whether permitting the requested use would violate the concurrent use software license.

9. (Original) The method of claim 1, further comprising tracking concurrent uses of a plurality of computer programs across the plurality of logical partitions.

10. (Once Amended) An apparatus, comprising:

(a) a logically partitioned computer including a plurality of logical partitions;

(b) a plurality of operating systems, each resident in a different logical partition among the plurality of logical partitions; and

(c) a first program resident in the computer, the first program configured to manage a concurrent use software license for a second program in the computer by tracking concurrent uses of the second program across the plurality of logical partitions, and selectively denying a request to use the second program in a first logical partition if permitting the requested use would violate the concurrent use software license, wherein the first program includes:

(i) a partition manager accessible by the plurality of logical partitions and configured to track the concurrent uses of the second program across the plurality of logical partitions; and

(ii) a license manager resident in the first logical partition and configured to access the partition manager in response to the request to use the second program in the first logical partition.

11. (CANCELED).

12. (Once Amended) The apparatus of claim 10, wherein the partition manager is configured to track concurrent uses of the second program by maintaining a global count of the number of concurrent uses of the second program across the plurality of logical partitions.

13. (Original) The apparatus of claim 12, wherein the license manager is further configured to receive the global count from the partition manager in response to the access thereto, and to selectively deny the request when the global count is at least equal to a maximum number of concurrent uses permitted by the concurrent use software license.

14. (Original) The apparatus of claim 12, wherein the license manager is further configured to increment the global count whenever a request to use the second program is granted, and to decrement the global count whenever a use of the second program is terminated.

15. (Original) The apparatus of claim 14, wherein the license manager is resident in the first logical partition, and wherein each additional logical partition includes an associated local license manager.

16. (Original) The apparatus of claim 14, wherein the global count is associated with a program identifier for the second program, and wherein the license manager is configured to pass the program identifier to the partition manager when accessing the partition manager.

17. (Original) The apparatus of claim 11, wherein the partition manager is further configured to track concurrent uses of a plurality of programs across the plurality of logical partitions.

18. (Once Amended) An apparatus, comprising:

(a) a plurality of logical partitions;

(b) a plurality of operating systems, each resident in a different logical partition among the plurality of logical partitions;

(c) a partition manager configured to track concurrent uses of a computer program across the plurality of logical partitions; and

(d) a plurality of license managers, each license manager resident in an associated logical partition among the plurality of logical partitions, and each license manager configured to access the partition manager responsive to a request to use the computer program in the associated logical partition.

19. (Once Amended) A program product, comprising:

(a) a first program configured to manage a concurrent use software license for a second program in a logically-partitioned computer of the type including a plurality of logical partitions, with each logical partition including an operating system resident therein, the first program including a partition manager accessible by the plurality of logical partitions and configured to track concurrent uses of the second program across the plurality of logical partitions in the logically-partitioned computer, and a license manager, resident in a first logical partition among the plurality of logical partitions and configured to access the partition manager in response to a request to use the second computer program in the first logical partition and selectively deny the request if permitting the requested use would violate the concurrent use software license; and

(b) a signal bearing medium bearing the first program.

20. (Original) The program product of claim 19, wherein the signal bearing medium includes at least one of a recordable medium and a transmission-type medium.